

# MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

VOL. XXVII.

JUNE, 1899.

No. 6

## INTRODUCTION.

The MONTHLY WEATHER REVIEW for June, 1899, is based on reports from about 3,000 stations furnished by paid and voluntary observers, classified as follows: regular stations of the Weather Bureau, 154; West Indian service stations, 10; cotton region stations, 127; corn and wheat region stations, 133; special river stations, 132; special rainfall stations, 48; voluntary observers of the Weather Bureau, 2,220; Army post hospital reports, 27; United States Life-Saving Service, 14; Southern Pacific Railway Company, 96; Canadian Meteorological Service, 32; Mexican Telegraphic Service, 20; Mexican voluntary stations, 7. International simultaneous observations are received from a few stations and used, together with trustworthy newspaper extracts and special reports.

Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada; Mr. Curtis J. Lyons, Meteorologist to the Hawaiian Government Survey, Honolulu; the Director of the Central Meteorological and Magnetic Observatory of Mexico; Señor A. M. Chaves, Director-General of

Mexican Telegraphs; Mr. Maxwell Hall, Government Meteorologist, Kingston, Jamaica; Capt. S. I. Kimball, Superintendent of the United States Life-Saving Service; and Capt. J. E. Craig, Hydrographer, United States Navy.

The REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe.

Attention is called to the fact that the clocks and self-registers at regular Weather Bureau stations are all set to seventy-fifth meridian or eastern standard time, which is exactly five hours behind Greenwich time; as far as practicable, only this standard of time is used in the text of the REVIEW, since all Weather Bureau observations are required to be taken and recorded by it. The standards used by the public in the United States and Canada and by the voluntary observers are believed to conform generally to the modern international system of standard meridians, one hour apart, beginning with Greenwich. Records of miscellaneous phenomena that are reported occasionally in other standards of time by voluntary observers or newspaper correspondents are sometimes corrected to agree with the eastern standard; otherwise, the local meridian is mentioned.

## FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

No severe wind storms visited the seaboard or the Great Lakes during June, 1899.

Severe local storms occurred in western Wisconsin the evening of the 12th. The most destructive storm of this group occurred at New Richmond. In the early evening of the 14th a local storm occurred at Herman, Nebr.

During the closing days of June and the early part of July phenomenally heavy rains caused destructive floods in the valley of the Brazos River, Tex. These floods, which caused the loss of 40 to 50 lives and destroyed property and crops to the estimated value of about \$10,000,000, will be fully discussed in the MONTHLY WEATHER REVIEW for July, 1899.

Timely warnings were issued of high water in the Willamette River at Portland, Oreg., on the last day of the month, and no loss resulted in the flooded district.

Special wheat bulletins for the valley of California were begun June 1. A particular purpose of these bulletins is to give warning to the great wheat growing section of California of the occurrence of northers. During June, 1899, no northers occurred in California.

Rain warnings were issued for the storm which occurred in California May 31-June 1.

Beginning June 1 special fog forecasts have been made at San Francisco, Cal., for the benefit of the shipping interests.

## LONG-RANGE FORECASTS.

On June 24 the official in charge of the Weather Bureau office at Milwaukee, Wis., requested a special forecast for Milwaukee and vicinity from the Central Office at Washington on Tuesday, the 27th, to cover the four carnival days ending Friday, June 30. In accordance with this request the following forecast was telegraphed the morning of the 27th:

Observer, Milwaukee, Wis. Conditions favor local rains and thunderstorms Wednesday, and fair weather Thursday and Friday.

In almost exact fulfillment of this prediction local rains the early part of Wednesday were followed during the balance of the carnival period by fair weather.

## CHICAGO FORECAST DISTRICT.

There were no severe storms on the upper Lakes during the month of June, 1899.

The afternoon of the 28th a very moderate low pressure area caused high winds on Lake Michigan. The morning advices of that day were that brisk to high northerly winds with showers and squalls were indicated for Lake Michigan that afternoon and night. At Chicago a maximum wind